

REMARKS

This is intended as a full and complete response to the Office Action dated April 3, 2003, having a shortened statutory period for response set to expire on July 3, 2003. Claims 1, 3-5, 9, 11-13 and 17-20 have been amended and new claims 22-29 have been added to more clearly recite aspects of the invention. Applicants believe no new matter has been introduced by the amendments and the new claims presented herein. The amendments have been made in a good faith effort to advance prosecution on the merits. Claims 2, 8, 10 and 16 have been cancelled without prejudice. Applicants reserve the right to subsequently take up prosecution of the claims as originally filed in this application in a continuation, a continuation-in-part and/or a divisional application. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-4, 8-12, 16-17 and 20-21 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,978,202 ("*Wadensweiler*"). *Wadensweiler* generally describes an electrostatic chuck having an electrostatic member supported on a base in a process chamber. The electrostatic member has an insulator or a dielectric with an electrode embedded therein. A thermal transfer regulator pad is positioned between the electrostatic member and the base to control the transfer or flow of heat from a substrate. The pad has a symmetric circular shape, such as a solid circular disc, or a series of annular rings with a gap portion between the rings. The diameter, thermal conductivity and thickness of the pad are selected to provide a desired thermal resistance profile, thereby obtaining a desired temperature profile across the substrate. For example, the thermal resistance, shape, size, and position of the pad can be selected to increase or reduce thermal heat transfer rates from the central or peripheral portions of the substrate. When hotter temperatures are desired at the center of the substrate, the pad can include a centrally positioned circular pad having a thermal resistance sufficiently higher than the thermal resistance of the base to maintain temperatures at the center of the substrate about 1 degree Celsius to about 10 degrees Celsius higher than the temperatures at the perimeter of the substrate. Hotter temperatures at the central portion of the substrate can also be obtained using a

peripherally positioned annular ring shaped pad, which includes a thermal conductor having a thermal conductivity higher than that of the base to increase the heat transfer rates from the substrate perimeter relative to the center.

However, *Wadensweiler* does not teach or disclose a thermal shim that includes a thermally insulative material centrally disposed within a thermally conductive material. Rather, *Wadensweiler* describes a thermal transfer regulator pad in the form of a disc or a ring made of the same material. *Wadensweiler* does not teach that the pad can be made of two different materials, e.g., a thermally insulative material centrally located within a thermally conductive material. Accordingly, claims 1, 9, 17 and 20 (as amended) are patentable over *Wadensweiler*. Claims 3-7, 11-15, 18-19 and 21 are also patentable over *Wadensweiler* since they depend from claims 1, 9, 17 and 21, respectively. Claims 2, 8, 10 and 16 have been cancelled without prejudice. Accordingly, their rejection under 102(b) in view of *Wadensweiler* is now moot.

The Examiner has rejected various dependent claims. However, because the rejections to the respective base claims have been overcome, Applicants submit that the rejections for the dependent claims are obviated.

With regard to new claims 22-29, Applicants submit that claims 22-29 recite subject matter that is neither disclosed, taught, nor otherwise suggested by the cited references, and as such, allowance of these claims is respectfully requested.

In conclusion, the references cited by the Examiner, neither alone nor in combination, teach, show, or suggest the claimed method or apparatus. Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

The prior art made of record is noted. However, it is believed that the secondary references are no more pertinent to the Applicants' disclosure than the primary references cited in the office action. Therefore, it is believed that a detailed discussion of the secondary references is not deemed necessary for a full and complete response to this office action. Accordingly, allowance of the claims is respectfully requested.

Respectfully submitted,



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